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ABSTRACT

Project SPEED, which is housed at Fort Hamilton High School in Brooklyn, New York, provides instruction in English as a second language (ESL) and in the student's native language, as well as bilingual instruction in social studies, computers, and typing to 366 students of limited English proficiency (LEP) in Grades 9-12. In 1983-84, all of the program's students were born outside the United States. Almost half of them were Hispanics, and the remainder were Asian and Middle Eastern in origin. To achieve the program's central goal of dropout prevention, its bilingual instructional approach was transitional in nature. Individualized programs were planned for each student and classes were taught by both mainstream and resource teachers to heterogeneous groupings. In addition to instructional services, the program activities included student support services, curriculum development, staff development, parent involvement, and an advisory committee which addressed areas of program improvement. Student achievement data indicates that most students progressed in all subjects except mathematics at rates which matched the program's proposed criteria, and the attendance rate of program students was significantly greater than the schoolwide rate. Moreover, the program's dropout rate was significantly lower than the schoolwide rate. To improve the program's overall effectiveness, it is recommended that the program: (1) introduce more individualized approaches, such as grouping, to instruction in certain areas; (2) continue curriculum development and, if possible, bind materials rather than distribute them singly or in packets; (3) hold more formal staff meetings and planning sessions; and (4) strengthen the program's counseling component in the area of preventive group counseling. (KH)

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FORT HAMILTON HIGH SCHOOL

PROJECT SPEED: SPECIAL

EDUCATION TO ELIMINATE DROPOUTS

1983-1984

OEA Evaluation Report

UD 024 488

O.E.A. Evaluation Section Report

Robert Tobias, Administrator of Evaluation
Judith S. Torres, Senior Manager

Grant Number: G00-820-2691

FORT HAMILTON HIGH SCHOOL

PROJECT SPEED: SPECIAL

EDUCATION TO ELIMINATE DROPOUTS

1983-1984

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Director:
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A SUMMARY OF THE REPORT

This program, in its second year of a three-year funding cycle, provided instruction in English as a second language (E.S.L.) and in the students' native language. It provided bilingual instruction in social studies, computers, and typing to 366 students of limited English proficiency (LEP) in grades nine through twelve. All program students were reported to have been born outside the United States. Forty-eight percent were Hispanic; about half of the Hispanic students were from Puerto Rico and the Dominican Republic. Of the 107 Asian-born students, the majority were from the People's Republic of China and Hong Kong and were native speakers of Cantonese. Sixty-nine program students were born in the Middle East. Most of these students were from Lebanon, Yemen, and Egypt and spoke Arabic as their native language. Over half the students served by Project SPEED were overage for their grade.

One of the major goals of the program was dropout prevention. In an effort to achieve this goal, the program's bilingual instructional approach was transitional in nature. Although many program students did not have ample opportunity to develop native language literacy, the administration stressed the development of English language skills. The language policy was aimed at helping students to make the transition to an all-English educational, societal, and career environment as expeditiously as was educationally possible. In keeping with this philosophy, individualized programs were planned for each student and classes were taught by both mainstream and resource teachers to heterogeneous groupings, except when homogeneous groupings were considered necessary.

Title VII supported administrative, support services, and paraprofessional staff positions. A tax-levy bilingual history teacher served the program part-time and was also the Spanish-speaking resource teacher. Supportive services to program students were mainly program-centered activities, consisting of after-school group guidance sessions, career and college orientation, job placement counseling, referrals to outside agencies, and the involvement of outside resources in the counseling component. Curriculum materials were developed in Spanish for social studies and business and computer courses, in Chinese for science and social studies, and in Arabic for mathematics, science, and social studies. Development activities for staff members included program staff meetings, and attendance at in-house workshops and university courses. Parents of participating students were involved through ongoing mail and telephone contact and attendance at workshops and conferences held at the school. There was also an advisory committee which met to address areas of program improvement.

Program objectives were assessed in English language development (Criterion Referenced English Syntax Test [CREST]); content-area and special interest courses (teacher-made tests); and attendance and dropout rate (school and program records). Quantitative analysis of student achievement data indicates that:

--Students attained the proposed criterion of one objective mastered per month on the CREST in the spring term. Most students were at the advanced level of the test.

--Overall passing rates in science and social studies courses exceeded 70 percent both semesters. Only students enrolled in mathematics courses did not meet the 70 percent objective, with overall passing rates of 65 percent (fall) and 59 percent (spring).

--Students' overall passing rates in business/vocational courses (76 percent in fall; 79 percent in spring) came close to but did not meet the proposed objective of 80 percent passing.

--Chinese-speaking students had the highest overall passing rates in all content-area subjects.

--The attendance rate of program students was significantly greater than the school-wide rate.

--The program's drop-out rate was significantly lower than the school-wide rate.

The following recommendations are aimed at improving the overall effectiveness of the program:

--With regard to the instructional component and subject to the availability of funds, introducing more individualized approaches to instruction, such as grouping, in certain subject areas.

--Continuing efforts in the area of curriculum development and, if possible, binding materials rather than distributing them singly or in packets.

--Holding more formal staff meetings and planning sessions aimed at refining individualization approaches, particularly for "semi-linguals."

--Strengthening the program's counseling component in the area of preventive group counseling.

ACKNOWLEDGEMENTS

The production of this report, as of all Office of Educational Assessment Bilingual Education Evaluation Unit reports, is the result of a cooperative effort of regular staff and consultants. In addition to those whose names appear on the cover, Ida Heyman has interpreted findings and integrated material into reports. Barbara Shore has written report summaries. Patricia Fitzpatrick has spent many hours creating, correcting, and maintaining data files. Finally, Joseph Rivera has worked intensively to produce, correct, duplicate, and disseminate reports. Without their able and faithful participation, the unit could not have handled such a large volume of work and still produced quality evaluation reports.

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FORT HAMILTON HIGH SCHOOL
PROJECT SPEED

Location:	8301 Shore Road Brooklyn, New York 11209
Year of Operation:	1983-1984, Second year of three-year funding cycle
Target Languages:	Spanish, Chinese, Arabic
Number of Participants:	366 Fall, 352 Spring
Principal:	Diego Coscarelli
Project Director:	Robert Diaz

I. OVERVIEW

Project SPEED is housed at Fort Hamilton High School in Brooklyn. The high school overlooks the Narrows from which the New Jersey coast is visible. The physical school facility is spacious with an adjoining athletic field. The school facilities, including hallways, classrooms, auditorium, and cafeteria are in a milieu that appears to be as stable, secure, and relaxed as the neighborhood in which it is located.

The student population reflects the multiethnic composition of this Brooklyn community. In 1983-84, approximately 50 percent of Fort Hamilton's 2,850 students were white, followed by 30 percent Hispanic, ten percent black, and ten percent Asian. These students' native languages (other than English) include Spanish, Chinese, Greek, Italian, Arabic, and Korean (among many others).

Project SPEED has delineated specific objectives which seek to increase the holding power of the school over its limited English proficient (LEP) students of Hispanic, Chinese, and Arabic backgrounds.

Its design is intended to address the problem of the growing dropout rate of this population. The program services include a broad scope of bilingual classes which increase students' motivation to stay in school; strong guidance services; a flexible, individualized teaching approach for LEP students who have a propensity toward truancy and absenteeism; and providing alternative means to obtain a high school diploma for LEP students who are over 17 years of age when entering high school or are over 18 years of age when returning to school.

The project's ultimate goal reflects a consensus of opinion among the school administration, program administration, and teaching staff: to help program students enter the mainstream of the school within two years.

II. PARTICIPANTS

STUDENT CHARACTERISTICS

Since Project SPEED is a "magnet" program, any Arabic-speaking student in the city or any Chinese-speaking student who lives in Brooklyn, who qualifies for bilingual education, can enroll in the project at Fort Hamilton.

All of the 352 program students enrolled in the spring were reported to have been born outside the United States. Forty-eight percent are Hispanic. About half of the Hispanic students are from Puerto Rico and the Dominican Republic. The rest were born in El Salvador, Ecuador, Panama, and other Central and South American countries.

There are 107 Asian-born students. The majority are from the People's Republic of China and Hong Kong and are native speakers of Cantonese. There are 15 Vietnamese students, ten of whom speak Vietnamese and five who speak Cantonese. A small number of program students from Taiwan and Thailand speak Mandarin.

Sixty-nine program students were born in the Middle East. Most of them are from Lebanon, Yemen, and Egypt and speak Arabic. There is a small number of Israeli students who speak Hebrew. Table 1 presents the program students, for whom information was reported, by country of birth.

The majority of program students are male; male students outnumber females in all grades (see Table 2). Another characteristic of the program population is that students tend to be two or more years older than the expected age range for their grade -- 54 percent of the

TABLE 1

Number and Percent of Program Students by

Language and Country of Birth

Language	Country of Birth	Number	Percent
Spanish	Puerto Rico	58	16
	Dominican Republic	44	13
	Mexico	5	1
	Honduras	4	1
	Guatemala	7	2
	El Salvador	14	4
	Nicaragua	1	Less than 1
	Panama	12	3
	Colombia	5	1
	Ecuador	21	6
	Peru	5	1
Asian	Vietnam	15	4
	Thailand	1	Less than 1
	Cambodia	4	1
	People's Republic of China	49	14
	Taiwan	4	1
	Hong Kong	32	9
	Other "Asia"	2	Less than 1
Middle Eastern	Israel	4	1
	Lebanon	23	7
	Syria	5	1
	Yemen	15	4
	Egypt	13	4
	Other "Middle Eastern"	9	3
	TOTAL	352	100

- Forty-eight percent of all program students are native speakers of Spanish. One third of the students in this group were born in Puerto Rico. The next largest subgroup was born in the Dominican Republic.

- The second largest group of program students were Asian born. Most students in this group are from the People's Republic of China and Hong Kong and are native speakers of Cantonese. This group also includes small numbers of students who are native speakers of Vietnamese and Mandarin.

- The third group is comprised of students who were born in the Middle East. One third of these students were born in Lebanon. The remaining students are from other Arabic countries and Israel. The native languages spoken by these students include Arabic and Hebrew.

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students served by Project SPEED are overage (see Table 3). Table 4 shows the time students have spent in the bilingual program by grade.

TABLE 2

Number and Percent of Program Students by Sex and Grade

Grade	Number Male Students	Percent of Grade	Number Female Students	Percent of Grade	Total Number	Percent of All Students
9	57	56	45	44	102	30
10	61	60	41	40	102	30
11	53	60	35	40	88	26
12	27	55	22	45	49	14
TOTAL	198	58[a]	143	42[a]	341	100

[a]Percent of program students.

- The majority of program students (58 percent) are male. Male students outnumber females in all grades.
- The number of program students by grade decreases in grades eleven and twelve, possibly due to the program's mainstreaming practice.

TABLE 3

Number of Program Students by Age and Grade

Age	Grade 9	Grade 10	Grade 11	Grade 12	Total
14	12	0	1	0	13
15	24	19	1	0	44
16	25	34	14	0	73
17	19	32	22	10	83
18	12	11	27	19	69
19	6	3	16	14	39
20	3	2	7	4	16
21	0	1	1	2	4
TOTAL	101	102	89	49	341
Overage Students					
Number	65	49	51	20	185
Percent	63.1	48	57.3	40	53.8

Note. Shaded boxes indicate expected age range for grade.

- The majority (54 percent) of program students are overage for their grade.
- The highest percentage of overage students is in grade nine (63 percent).

TABLE 4

Time Spent in the Bilingual Program[a]

(As of June 1984)

Time Spent in Bilingual Program	Number of Students Grade 9	Grade 10	Grade 11	Grade 12	Total
<1 Academic Year	24	20	19	3	66
1 Academic Year	66	25	23	14	128
2 Academic Years	16	57	47	33	153
TOTAL	106	102	89	50	347

[a]Rounded to the nearest year.

- The majority of the students have been in the program one year or less.
- New entrants are evenly distributed in grades nine through eleven, while half of those in the program for one year are in grade nine.

STAFF CHARACTERISTICS

The Title VII staff consists of the project director, two resource teachers/curriculum specialists (Arabic and Chinese), three paraprofessionals, and one secretary. A tax-levy bilingual history teacher has also been assigned to the program part-time and serves as the Spanish-speaking resource teacher.

Program staff is supervised primarily by the program director. However, teachers are supervised by the chairperson of their respective departments. Despite this dual administrative structure, the director has been able to secure the involvement of these teachers in cooperating in efforts to individualize instruction to meet the linguistic and cognitive/academic needs of the students. The roles of mainstream staff are well-integrated with the overall program structure. Interviews with those related to the program indicate that both mainstream and program staff have made an effort to meet the individual needs of the LEP students, and to keep communication lines open to discuss new ideas as well as problems.

All observed staff members exhibited motivation, dedication, and competence. Their daily routine of duties was also noted to be extensive. For example, over a two-day period, the director was observed interviewing parents, helping arrange summer jobs for students (including jobs for those who had already left the program), advising students on schedules for the next session, dealing with disciplinary problems, conferring and meeting with staff members, tracking down a student who had not been present in certain classes for two days, working with staff on record-keeping duties, and monitoring the curriculum development

activities of resource teachers.

In addition to instructional and curriculum development responsibilities, the resource teachers and paraprofessionals also perform record-keeping and data collection. Further, these staff members displayed an excellent rapport with their students, as well as with the director and mainstream school staff and administrators.

Appendix A presents characteristics of the staff serving project students.

III. PROGRAM DESCRIPTION

PHILOSOPHY

The program's instructional approach follows the philosophy and goals of "transitional" bilingual education but reflects a necessary compromise between two competing pedagogical values: learning English quickly versus developing full literacy in the native language while learning English gradually. Although many LEP students have not had an opportunity to develop native language literacy, given the short duration of the high school program and the lack of appropriate resources, the administration feels it is not prudent to stress native language literacy prior to developing English language skills. The language policy for instruction is clear: helping students make the transition to an all-English educational, societal, and career environment as expeditiously as is educationally possible.

OBJECTIVES

For evaluation, the program proposed the following instructional and non-instructional objectives:

1. Seventy-five percent of the students enrolled in E.S.L. classes will master ten more objectives on the post-test than on the pre-test.

2. Seventy percent of the students enrolled in content-area courses will pass these subjects.

3. Eighty percent of the students attending special interest classes will pass these subjects thus accumulating credits toward graduation.

4. Seventy percent of the students enrolled in native language classes and 65 percent of the students enrolled in native language arts will increase their performance in the appropriate level of the Interamerican Series, La Prueba de Lectura at the .05 level of significance.

5. Fifty percent of the students attending the Return Laboratory will be successfully mainstreamed within one term.

6. Seventy percent of all students enrolled in the high school equivalency preparation program will pass the High School Equivalency Examination and will receive a diploma.

7. Students who remain in the high school equivalency preparation program for one year will increase their level of English reading ability at the .05 level of statistical significance.

8. The percentage of students placed in college or vocational training institutions will be equal to or greater than that of mainstream candidates.

9. The program students will have a higher rate of attendance and a significantly lower dropout rate than similar mainstream students.

10. One hundred percent of the program students will attend three or more group and individual guidance sessions.

INSTRUCTIONAL COMPONENT

Fort Hamilton High School has for some time sought to institutionalize bilingual programs for its LEP students. The current program staff is integrated with non-Title VII staff, and combined they provide English as second language (E.S.L.) classes, native language instruction in content areas, and intensive guidance services.

The Language Assessment Battery (LAB) test is initially used to identify target LEP students of Arabic-, Chinese-, and Spanish-speaking backgrounds. The program also considers other characteristics such as a student's birthplace, home language, school discipline and attendance record, and age. Students of non-English backgrounds who are experiencing difficulty in school are recommended for program participation by classroom teachers.

An individualized program is planned for each student under the guidance of the program director. The Spanish-speaking program director

places students in required classes and advises them as to appropriate elective courses which should be taken. He is assisted by the Arabic- and Chinese-speaking resource teachers/curriculum specialists who are available to translate and advise students who speak those languages.

The program offers beginning, intermediate, and advanced levels of E.S.L. classes. Most program students receive four double periods of E.S.L. instruction per week. The E.S.L. teachers group students according to linguistic needs, and paraprofessionals assist the E.S.L. teachers in working primarily with recent arrivals.

Spanish language classes are open to all students interested in language instruction. Chinese and Arabic students, however, are in a pull-out program. They receive native language instruction once or twice per week.

The program addresses the needs of its "semi-lingual" students, those who have not developed literacy in either their native language or English, by offering native language vocabulary and concept reinforcement for the standard curriculum subject courses. The resource teachers and paraprofessionals for each target language group use tutorials, pull-outs, and small-group instruction in this process. In addition, certain basic subjects are taught almost exclusively in the native language. For example, American history, American government, science, and mathematics are taught bilingually or in the native language only.

Computer and typing classes are also major thrusts. Instruction in the computer class is available only in English, however. Other non-academic high school courses such as typing are also available to program

students in English; these allow for partial mainstreaming. Appendix B presents the project director's report of the E.S.L., native language arts, content-area, and specialized courses offered to project students during the fall and spring.

In general, the instructional program was patterned according to the program's objectives. Classes taught by both mainstream and resource teachers were heterogenous groupings, except in areas where it was felt that homogeneous grouping was necessary, or was logistically and financially feasible. All program students attended two or more mainstream classes each day, and had ample time to interact with English-dominant students.

Data submitted to the Office of Educational Assessment showed that as students' E.S.L. level increased, more were enrolled in math, science, and social studies courses given in English. Content-area courses given in the native language were mostly taken by students at lower levels of E.S.L. instruction. According to the director, he and his staff monitored closely each student's academic progress. This was possible because of his close contact with mainstream teachers and his familiarity with the content of the mainstream curricula.

A member of the evaluation team observed E.S.L. classes, a computer class, and three bilingually-taught American government classes in which Chinese, Spanish, or Arabic was used for instruction.

The American government class for Chinese students was conducted almost entirely in Chinese. The resource teacher used curriculum materials she had adapted and translated from the textbook used in the corresponding mainstream class. Students were extremely attentive and

the teacher used a bilingual approach involving "code-switching" from Chinese to English in order to clarify concepts. The teacher wrote outlines and homework assignments on the chalkboard in both languages. A written examination was also given bilingually. Many student workbooks contained notes and homework in Chinese and in English. During the lesson, which involved the entire class in a traditional lecture and question-and-answer session, the paraprofessional worked with individual students to clarify concepts and to check homework.

The bilingual course on American government for Spanish-speakers was conducted almost entirely in Spanish by the resource history teacher. The course is intended, as are the corresponding Chinese and Arabic courses, to enable all program students to pass the Regents examination in this subject area. The Spanish-taught history course has been institutionalized since the availability of the Regents examination for the subject in Spanish.

The students enjoyed the use of a recently published Spanish language (translation) textbook on the subject. They appeared well-motivated. The teacher noted that a paraprofessional was usually available to help tutor students with difficulties on an individual basis, but the paraprofessional was not present during the observation.

The computer class observed enrolled students from all three language groups. According to the teacher, the class was comprised of "slow" students. The class was conducted entirely in English, was extremely well-managed, and the students appeared motivated. However, the course goal of "hands-on" skills development was severely hampered

by the shortage of microcomputers (it was reported that several had been recently stolen). The teacher noted that bilingual paraprofessionals provided assistance to the students when necessary.

IV. NON-INSTRUCTIONAL COMPONENT

SUPPORTIVE SERVICES

Support services for students consist mainly of guidance activities under the direction of the project director who serves as chief guidance counselor. Ancillary guidance is provided by the program staff and sensitive mainstream teachers.

The director, it was observed, has developed a special rapport with the program students. This rapport, perhaps the key ingredient to the program's achieving its guidance objectives, continues with students who leave the program. In dealing with students who exhibit undesirable attitudes or behavior, the director uses a confrontational approach which, given the trust he has engendered in students, appears effective.

Moreover, the degree of his involvement in preventing student dropout was clear in his ability to speedily identify "problem" students and their areas of needs. This familiarity, he explained, was due to his close contact and communication with staff, students, non-program staff, and parents. Every student that entered his office was known and addressed by name. His sense of humor, integrity, and honesty was obviously appreciated by the students, staff, and other school educators, who were inclined to be cooperative. One student interviewed had only praise for the guidance offered by the program for her development. The assistant principal also noted the success of the program in this area.

Group guidance sessions were held on an ad hoc basis to deal with problems as they arose. Since students' time was consumed by necessary coursework required to pass the Regents examination or earn

the General Equivalency Diploma, group guidance sessions were held after regular school hours during the year. Other support services to students included career and college orientation as well as job placement counseling.

In addition to direct guidance from program staff, students and parents were referred to several outside agencies which serve refugees and immigrants, especially the Indo-Chinese. Outside resources whose support was enlisted during the year included a Vietnamese counselor (brought in to counsel those Vietnamese students involved in an incident of racial violence), the Refugee Urban Skills Community Action Project, and the Center for Family Life. Fort Hamilton's school-based support team was also used to provide service for students who exhibited some handicapping condition.

CURRICULUM DEVELOPMENT

In addition to their classroom duties, the resource teachers also serve as curriculum specialists to the program, preparing bilingual materials for use in the content areas they teach. Their non-instructional time is therefore spent in the difficult task of translating and adapting pertinent English language textbooks. While the goal is to ensure that the LEP students have access to the required New York State curriculum in their native language, the development of these curricula and materials is in process. Many of these curriculum materials are still in the form of rexographs and photocopies, handed out to students on a weekly or a monthly basis. The curriculum development efforts of the staff are actually part of the program's transitional bilingual instructional component. The bilingual classes could not be conducted, with the

possible exception of Spanish language courses, without these staff-developed materials. The curriculum developed in 1983-84 included Spanish materials for social studies, business, and computer courses. Also, the project developed Chinese materials for science and social studies, and Arabic materials for use in mathematics, science, and social studies classes.

STAFF DEVELOPMENT

To enhance the resource teachers' skills, they are encouraged to enroll in college courses, and to attend professional conferences. They also attend monthly workshops on-site conducted by the director. Paraprofessionals, who are less experienced in the education field, are also encouraged to further their education and participate in workshops and conferences.

In 1983-84, eight meetings were held for all program staff members to discuss program issues. In addition, three workshops were held for the resource teachers/curriculum specialists on classroom management, improving attendance, and improving student attitudes. Two resource teachers took graduate courses in mathematics and science at Brooklyn College, and one paraprofessional enrolled in a mathematics course at Jersey City State College.

PARENTAL INVOLVEMENT

The involvement of students' parents is an objective of the program and it is attempted in several ways. All staff members communicate with parents by mail and telephone on an ongoing basis. In addition, workshops and conferences are held at the school site. There is also an

advisory committee, comprised of parents, which discusses problem areas and recommends possible program improvement.

Individual program teachers also involve parents in their children's educational progress. The Chinese resource teacher, for example, requires parents to sign students' nightly homework. In addition, teachers contact parents immediately if there is a problem, and arrange for meetings with parents when possible. It is reported, however, that substantial parental involvement remains an elusive program objective. Although efforts are made to involve individual parents through various means and for a variety of reasons, success in attracting parents to school is limited. Those activities that have been successful are said to be helpful in achieving the goal of retaining and graduating these LEP students.

V. FINDINGS: STUDENT ACHIEVEMENT, ATTENDANCE, AND DROPOUT

The following section presents the assessment instruments and procedures, and the results of the testing to evaluate student achievement as proposed for the academic year 1983-84.

ACQUISITION OF ENGLISH SYNTAX

--Seventy-five percent of the students enrolled in E.S.L. classes will master ten more objectives on the posttest than on the pre-test.

Since the period of time between pretest and posttest was not ten months, and it generally takes students one month to master an objective on the Criterion Referenced English Syntax Test (CREST), the analysis of this program objective was revised. The gains were compared against a criterion set by Chapter I for E.S.L. programs in New York City: one CREST objective per month of instruction. This objective incorporates actual instruction time in the analysis.

The assessment instrument used for measuring the attainment of the objective was the CREST, a test developed by the New York City Public Schools to measure mastery of instructional objectives of the E.S.L. curricula. There are four items for each objective, and mastery of an objective is achieved when three of the items are answered correctly. The test has three levels: beginning (I), intermediate (II), and advanced (III). The maximum score on Levels I and II is 25, while the maximum score on Level III is 15.

Mean differences between pretest and posttest are computed to represent the gain score, and an index which represents the number

of objectives mastered per month is computed by dividing the gain score by the actual months of instruction. Extensive information on CREST objectives and psychometric properties are in the Technical Manual, New York City English as a Second Language Criterion Referenced English Syntax Test.*

The CREST was administered at the beginning and end of both the fall and spring semesters. Table 5 presents the test results for students who were pretested and posttested with the same test level during each semester. Data were available for 187 students in the fall and 220 students in the spring. Most students were tested on the advanced level of the CREST each semester. Examination of Table 5 reveals that students met the criterion of one objective mastered per month in the spring term but not in the fall.

In the spring, students tested at Levels I and II surpassed the criteron of one objective mastered per month with 1.9 (Level I) and 1.5 (Level II) objectives mastered per month. Students tested at Level III, who comprised the largest group, achieved 0.9 objectives mastered per month. Overall, from fall to spring there was an increase in the average number of objectives mastered per month of instruction from 0.4 in the fall to 1.2 in the spring.

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*Board of Education of the City of New York, Division of High Schools, 1978.

TABLE 5

Results of the Criterion Referenced English Syntax Test

(Program Students Pretested and Posttested on Same Test Level)

Test Level	Number of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
			Fall			
I	14	5.1	6.7	1.6	2.7	0.6
II	29	4.7	7.3	2.6	2.9	0.9
III	144	6.6	7.7	1.2	2.9	0.4
TOTAL	187	6.2	7.3	1.1	2.9	0.4
			Spring			
I	39	7.4	11.9	4.5	2.4	1.9
II	36	7.3	11.2	3.8	2.5	1.5
III	145	7.4	9.7	2.3	2.6	0.9
TOTAL	220	7.4	10.4	3.0	2.6	1.2

*Posttest minus pretest.

- Overall, students met the program objective in the spring term only.
- There was an overall increase from fall to spring in the average number of objectives mastered per month. Students tested in the spring successfully attained the program objective.

STUDENT PERFORMANCE IN MATHEMATICS, SCIENCE, SOCIAL STUDIES, AND BUSINESS/ VOCATIONAL COURSES

--Seventy percent of the students enrolled in content-area courses will pass these subjects.

--Eighty percent of the students attending special interest classes will pass these subjects thus accumulating credits toward graduation.

Student performance in content-area courses and various electives was analyzed in accordance with the above objectives. Passing rates in mathematics, science, and social studies were calculated (Table 6) and compared against the criterion standard proposed of 70 percent passing. The overall passing rates in the content areas were 70 percent for both fall and spring, thus meeting the proposed criterion. When content-area subjects are examined separately, only the passing rates of students enrolled in mathematics courses did not meet the target objective. In the fall, 65 percent passed mathematics and 59 percent passed in the spring. Students enrolled in science classes attained a 75 percent passing rate in the fall and a 73 percent passing rate in the spring. Passing rates in social studies courses increased from 72 percent in the fall to 77 percent in the spring.

Those students enrolled in business and vocational electives had passing rates of 76 percent in the fall and 79 percent in the spring, coming close to, but not reaching the program objective of 80 percent passing special interest classes.

Overall passing rates were also computed for each of the targeted language groups in the program. Examination of Table 7 indicates

that passing rates for Spanish-speaking students did not meet the targeted objectives in either content-area or special interest courses either semester, while passing rates for Chinese students met the proposed criteria in all areas each semester. Arabic-speaking students attained the targeted objectives in mathematics (fall), science and social studies (fall and spring), and business/vocational courses (spring). The percent passing mathematics courses, however, decreased from 74 percent in the fall to 68 percent in the spring. Passing rates for Arabic-speaking students taking business courses increased from 68 percent in the fall to 86 percent in the spring semester.

TABLE 6

Number of Program Students Attending Courses and Percent Passing Teacher-Made Examinations in Content-Area Subjects

Content Area	Grade 9 N	Grade 9 % Passing	Grade 10 N	Grade 10 % Passing	Grade 11 N	Grade 11 % Passing	Grade 12 N	Grade 12 % Passing	Total N	Total % Passing
				Fall						
Mathematics	73	59	80	59	58	67	40	85	251	65
Science	50	68	63	68	50	78	29	97	192	75
Social Studies	67	49	73	70	65	82	37	97	242	72
Business/Vocational	22	50	45	71	44	84	29	90	140	76
				Spring						
Mathematics	87	44	79	63	61	67	30	73	257	59
Science	61	66	71	72	43	77	19	95	194	73
Social Studies	73	70	88	73	72	82	40	90	273	77
Business/Vocational	50	76	62	79	58	76	43	88	213	79

- Overall passing rates in science and social studies met the program objective both semesters.
- The highest passing rates in all subjects were achieved by students in grade twelve.

TABLE 7

Number of Program Students Attending Courses and Percent Passing Teacher-Made Examinations in Content-Area Subjects (By Language Group)

Fall

Content Area	Grade 9 N	Grade 9 % Passing	Grade 10 N	Grade 10 % Passing	Grade 11 N	Grade 11 % Passing	Grade 12 N	Grade 12 % Passing	Total N	Total % Passing
Spanish-Speaking Students										
Mathematics	35	49	41	42	29	52	21	81	126	52
Science	17	53	26	58	23	28	16	100	82	68
Social Studies	32	38	35	66	34	74	19	95	120	65
Business/Vocational	6	67	19	68	26	77	17	82	68	75
Chinese-Speaking Students										
Mathematics	16	75	19	84	15	87	10	90	60	83
Science	14	71	18	83	14	93	9	100	55	86
Social Studies	15	60	19	74	15	100	9	100	58	81
Business/Vocational	6	67	13	92	7	100	6	100	32	91
Arabic-Speaking Students										
Mathematics	17	65	11	73	5	100	6	83	39	74
Science	16	81	10	70	4	75	2	50	32	75
Social Studies	16	56	11	64	7	100	6	100	40	73
Business/Vocational	7	29	5	80	3	100	4	100	19	68

TABLE 7
(continued)

Spring

Content Area	Grade 9 N	Grade 9 % Passing	Grade 10 N	Grade 10 % Passing	Grade 11 N	Grade 11 % Passing	Grade 12 N	Grade 12 % Passing	Total N	Total % Passing
Spanish-Speaking Students										
Mathematics	37	30	41	49	27	52	17	59	122	45
Science	15	60	31	48	13	63	11	100	70	61
Social Studies	27	56	43	61	35	69	23	91	128	67
Business/Vocational	14	86	25	64	25	72	25	88	89	76
Chinese-Speaking Students										
Mathematics	20	55	18	83	17	82	9	100	64	77
Science	18	61	21	91	19	90	5	80	63	81
Social Studies	19	68	23	87	20	100	10	90	72	86
Business/Vocational	17	77	15	93	19	79	10	100	61	85
Arabic-Speaking Students										
Mathematics	21	57	11	82	9	78	3	67	44	68
Science	21	71	13	92	5	80	2	100	41	81
Social Studies	20	80	12	75	10	90	6	83	48	81
Business/Vocational	10	80	11	91	8	88	6	83	35	86

•Of the three language groups, Chinese-speaking students demonstrated the highest passing rates.

ATTENDANCE AND DROPOUT

--Program students will have a higher rate of attendance and a significantly lower dropout rate than similar mainstream students.

The attendance rates and z-test results are presented in Table 8. The overall program attendance rate (92 percent) was significantly greater than the school attendance rate (76 percent) by 16 percentage points. A z-test was used to examine the difference in the overall program rate and that of the general school population. A z-value sufficiently large to attain statistical significance indicates that the difference between the attendance rates is greater than would be expected by chance.

Data were also collected regarding students' exiting the program. The project reported that 52 students exited in June, seven exited in January, and 21 exited at other times during the academic year. Of the 80 students who left, 19 dropped out, 51 graduated, and 10 moved. Therefore the dropout rate for the program is five percent (19 out of a total of 352). The school dropout rate for the previous year is estimated at 15 percent.* A z-test for the significance of a proportion reveals that the program's dropout rate is significantly lower than the school's dropout rate, thus meeting the proposed objective.

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*Office of Student Information Services, New York City Public Schools. Drop-Outs from New York City Public Schools: 1982-1983.

TABLE 8

Significance of the Difference Between the Attendance Percentage of Program Students and the Attendance Percentage of the School

Grade	Number of Students	Mean Percentage	Standard Deviation
9	78	92.0	9.6
10	86	91.2	9.0
11	70	92.3	11.0
12	48	91.6	6.8
TOTAL	282	91.8	9.3

Average Schoolwide Attendance Percentage: 76.2

Percentage Difference = 15.6 $z = 6.1$ $p < .01$

•The program attendance rate (92 percent) was significantly higher than the school attendance rate (71 percent).

OTHER OBJECTIVES

Objectives 4, 5, 6, 8, and 10, which appear on pages 10 and 11, could not be evaluated because data were either incomplete or unavailable.

VI. CONCLUSIONS AND RECOMMENDATIONS

The program's emphasis on transitional bilingual education reflects a forced compromise between two competing educational viewpoints: expeditiously mainstreaming LEP students into an all-English environment versus mainstreaming after fully developing students' native languages. The program does not stress native language development. Rather, it attempts to assist students in adapting to instruction in English.

Students are offered intensive E.S.L. courses while receiving instruction in several key academic subjects in their native language and in English. The program of instruction implemented is basically consistent with the program's articulated philosophy, language policy, and objectives. However, more individualization may be necessary, such as the use of groups in certain subject areas. This issue has arisen in the past, and its resolution seems to be contingent on the availability of more funds to increase the number of resource teachers and curriculum specialists. Further, the project might review the need for individualization considering the difference in performance among language groups. While Chinese- and Arabic-speaking students tend to meet the targeted objectives, Spanish-speaking students do not. This may result from differences in student characteristics, such as prior education or level of motivation. In any case, the project might explore possible reasons for such differences in performance and plan instructional strategies according to the needs found.

The resource staff developed curriculum materials for each language group. These bilingual materials reflect their expertise in culling the key concepts of the New York State curricula. However, staff members have limited time to continually adapt, update, translate, and bind materials as necessary. Moreover, there is a need to continue curriculum development efforts in the target languages, since materials are scarce in Arabic and Chinese for the high school level.

The program staff remains the key ingredient in the success of program students. The director, resource teachers, and paraprofessionals, as well as the clerical staff, are hard working, competent, and dedicated. Although more systematic planning for enhancing individualization of instruction may be needed, the program's instructional and guidance services appear to be well integrated with those of the mainstream. Joint planning sessions between program and mainstream to enhance individualization in the program's three "tracks" of students may greatly increase the program's ability to serve a population with special needs, particularly the "semi-lingual."

The guidance services provided by the program are especially strong in the area of one-on-one advisement; all students enjoy personal, career, school, and college advisement. The director and staff have developed a good rapport with students and, when appropriate or possible, their parents. Problems are quickly identified and addressed, largely because of the close contact the director maintains with all staff who are involved with the students. Outside agencies are utilized to help deal with problems which the director cannot handle with school-based

resources. One area which might be strengthened next year is group counseling of a preventive nature.

The program's parental involvement activities seem to be successful in maintaining communication between the students' homes and the school. The director and program staff are well aware of the economic, physical, and emotional problems of the parents, many of whom are struggling daily in a new cultural environment. It should be noted that the staff's effort to meet with parents on an individual basis when deemed appropriate, and their willingness to meet with parents who request meetings for a variety of purposes, appear to enhance the program's relations with both parents and students.

All of the objectives proposed cannot be evaluated because data were either incomplete or unavailable. The program might review its objectives and determine which objectives it can realistically address and measure. Then, it might ensure that the record-keeping and documentation necessary to measure each objective are maintained. The O.E.A. ought to be consulted for assistance in this area early in the program year.

In general, the program is progressing toward meeting its main goal, that of retaining LEP students. The program's success can be attributed largely to the competence, morale, and motivation of its staff. These qualities seem to affect program students favorably by encouraging them to achieve and remain in school.

VII. APPENDICES

APPENDIX A

STAFF CHARACTERISTICS

Function	Percent Time Spent in Each Function	Date of Appt. to Each Function	Education (Degrees)	Certification License(s)	Total Yrs. Experience Education	Years Experience Bilingual	Years Experience F.S.L.	Years Other Relevant Experience
Sup'v. Bil.Dept.	100%	2/1/83	BA-Span-Ital. MA-Span.	Spanish D.H.S. Italian D.H.S. School Adm. and Supervisor	14½	1	1/2	
Bil.Grade Adv.	60%	9/68	BA-Span	Span.-DHS	16	5	1	
Bil.Guid.Counselor	40%		MA-Sup'v.and Adm.	Sup'v.&Adm.NYS				
Bil.Dean	50%	9/79	none		21	5		
Computer	17%							
Social Studies Sp.	40%	Span.1979 Bil. 1979	B.A. Span. MA Educ.(Span.) + 30 credits Bil.Ed.	Span. D.H.S. Anc.Bil.Soc.St.	14	7		7
Bil.Attend.Coor.	60%	1979						
Resource & Curr. Specialist	100%	10/82	Ed.M. (Ed'l Adminis.) M.R.E. (M.of Religious Ed.) M.A. (M. of Art in Sec.Ed.) B/D.E. (Bachelor of Rel.Ed.)	D.H.S. Chinese	11	9	2	14 yrs.of Southern Bapt.Churches Religious Ed. as Director of Sun. School Ed. & Music Dept.
NLA (Spanish)	20%	Feb.1962	B.A. in Ed. M.A. in Ed. M.A. in Adm. & Sup'v.	H.S.Spanish	25	15	10	Language teacher 25 yrs.
Bil. Sec.	100%	9/82	47 college cr.plus 3 inservice crs.	Reg. Sec. Lic.	2	2	0	15
Ed. Para	100%	5/20/78	6 college crs.		6	5	1	
Ed. Para	100%	4/16/81	B.S. (Math.).	NYS Cert. (D.H.S.) NYC perdiem Lic. DHS Math	6	3	none	none
Ed. Para	100%	10/29/82	B.A. M.A.	none	1½	1½	none	none

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APPENDIX B

COURSE OFFERINGS

ESL
Fall

Course Title and Level*	Number of Classes	Average Register	Class Periods Per Week	Is Class for Program Students Exclusively?	Type of Credit	Parapro-fessional Assistance (Y/N)	Description	Curriculum or Material in Use
ESL1	4	22	5	no	reg	yes	Instruction for beg. levels of Eng.Proficiency	Lado series
ESL2	5	21	5	no	reg	yes	Instruction for beg. levels of Eng.Proficiency	Lado series
ESL3	2	20	5	no	reg	yes	Instruction for advanced English proficiency	Lado series
ESL4	3	22	5	no	reg	yes	Instruction for advanced English proficiency	Lado series
Oral English	3	20	5	no	reg	no	Instructions in speaking	America
Remedial 1	5	33	5	no	reg	no	Emphasis in reading proficiency	1.Reading for concepts 2.Using good English
Remedial 3	6	33	5	no	reg	no	Emphasis in reading proficiency	1.Reading for concepts 2.Using good English
Remedial 5	5	34	5	no	reg	no	Emphasis in reading proficiency	1.Reading for concepts 2.Using good English
Remedial 7	4	35	5	no	reg	no	Emphasis in reading proficiency	1.Reading for concepts 2.Using good English

Spring

ESL1	2	25	5	no	reg.	yes	Instruction for beg. levels of Eng.Proficiency	Lado series
ESL2	3	20	5	no	reg.	yes	Instruction for beg. levels of Eng. Proficiency	Lado series
ESL3	3	23	5	no	reg.	yes	Instruction for advanced English proficiency	Lado series
ESL4	2	21	5	no	reg.	yes	Instruction for advanced English proficiency	Lado series
Oral English	2	19	5	no	reg.	no	Instructions in speaking	America
Remedial 2	5	33	5	no	reg.	no	Emphasis in reading proficiency	1. Reading for concepts 2. Using good English
Remedial 4	6	34	5	no	reg.	no	Emphasis in reading proficiency	1. Reading for concepts 2. Using good English
Remedial 6	5	33	5	no	reg.	no	Emphasis in reading proficiency	1. Reading for concepts 2. Using good English
Remedial 8	4	30	5	no	reg.	no	Emphasis in reading proficiency	1. Reading for concepts 2. Using good English

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Native Language

Fall

Course Title and Level*	Number of Classes	Average Register	Class Periods Per Week	Is Class for Program Students Exclusively?	Type of Credit	Paraprofessional Assistance (Y/N)	Description	Curriculum or Material in Use
Spanish for native speakers	2	23	5	no	reg.	no	Native Speakers Reading and Writing	Solar Hispanico
Spanish 7/9	2	35	5	no	reg.	no	Native Speakers Adv.Reading & Writing	Corazon de Espana
Spanish 5	5	34	5	no	reg.	no	Intermediate Reading and Writing	1.Cuentos Corrientes 2.Nuevo Gramatica
Spanish 3	8	34	5	no	reg.	no	Beginning Reading and Writing	Cuentos Contados Español al dia

Spring

Spanish for native speakers	2	21	5	no	reg.	no	Native Speakers Reading and Writing	Espanol para el Bilingue
Spanish 8/10	2	33	5	no	reg.	no	Native Speakers Reading and Writing	Español para el Bilingue
Spanish 6	5	33	5	no	reg.	no	Native Speakers Reading and Writing	Espanol para el Bilingue
Spanish 4	7	34	5	no	reg.	no	Native Speakers Reading and Writing	Espanol para el Bilingue

Content Area

Fall

Course title (track &/or level)	Number of classes	Average Register	Hours per week	Type of credit	Language(s) of Instruction	Used for what % of class time	Criteria for selection of students	Is class for program students exclusively?	Paraprofessional assistance? (Y/N)	% of materials in native language
Bilingual Typing	1	20	4	reg.	English	10	Language Ability	Y	Y	10
Spanish Bilingual American Studies I	1	28	4	reg.	Spanish	90	Language Ability	N	N	90
Spanish Bilingual Economics	1	32	4	reg.	Spanish	90	Language Ability	N	N	90
Bilingual Compute	1	31	4	reg.	English	90	Language Ability	N	N	90

Spring

Bilingual Typing	1	20	4	reg.	English	90	Language ability	Y	Y	10
Spanish Bilingual American Studies I	1	28	4	reg.	Spanish	90	Language ability	N	N	90
Spanish Bilingual American Govern.	1	32	4	reg.	Spanish	90	Language ability	N	N	90
Bilingual Computer	1	31	4	reg.	English	90	Language ability	N	N	10

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Specialized Courses
Fall

Course title (track &/or level)	No. of classes	Average Register	Hours per week	Type of credit	Criteria for selection of students	Is class for prog. student exclusively?	Paraprof. Assistance (Y/N)
Computer 1	1	29	4	regular	student request Grad.requirement	NO	Y
Typing 1	10	30	4	regular	Student request Grad.requirement	NO	Y
Typing 2	5	27	4	regular	student request Grad.requirement	NO	Y
Typing 3	1	34	4	regular	student request Grad.requirement	NO	Y
Acct. 1	2	30	4	regular	student request Grad.requirement	NO	Y
Bio. Med.	2	32	4	regular	student request Grad.requirement	NO	Y
Photography	2	29	4	regular	student request Grad.requirement	NO	Y
Wood Shop	8	31	4	regular	student request Grad.requirement	NO	Y
Metal Shop	2	32	4	regular	student request Grad.requirement	NO	Y
Mechanical Drawing	2	32	4	regular	student request Grad.requirement	NO	Y
Record Keeping	1	32	4	regular	student request Grad.requirement	NO	Y

Spring

Computer 1	1	30	4	Regular	Student request Grad.Requirement	NO	Y
Typing 1	12	31	4	Regular	Student request Grad.Requirement	NO	Y
Typing 2	7	29	4	Regular	Student request Grad.Requirement	NO	Y
Typing 3	1	33	4	Regular	Student request Grad.Requirement	NO	Y
Acct. 1-2	1	31	4	Regular	Student request Grad.Requirement	NO	Y
Bio. Med.	2	32	4	Regular	Student request Grad. Requirement	NO	Y
Photography	1	29	4	Regular	Student request Grad. Requirement	NO	Y
Woodshop	7	31	4	Regular	Student request Grad.Requirement	NO	Y
Metal Shop	2	30	4	Regular	Student request Grad.Requirement	NO	Y
Mechanical Drawing	2	33	4	Regular	Student request Grad.Requirement	NO	Y
Record Keeping	1	33	4	Regular	Student request Grad.Requirement	NO	Y